Shattuck Superfund Site

Fall 2001 Update

U.S. Environmental Protection Agency, Region 8 **November 2001**

THE PURPOSE OF THIS FACT SHEET is to update readers on EPA actions regarding the S.W. Shattuck Chemical Company Superfund site (Shattuck) at 1805 S. Bannock Street in Denver, Colorado (see Figure 1).

Figure 1. Site Location Map

ABOUT THE SITE

The Shattuck site is about 6 acres of S.W. Shattuck Chemical Company property and 4 acres of adjacent land belonging to the Burlington Northern and Santa Fe Railway Company.

The original Record of Decision (ROD) was signed in January 1992. In it, EPA selected on-site stabilization and solidification in the form of a monolith as the remedy for the soils and natural attenuation for ground water.

EPA conducted a five-year review of the Shattuck site and found site-specific deficiencies in the monolith cover design, the structural and chemical integrity of the monolith, and the monolith's compliance program. Based on these findings, EPA could not be assured of the long-term protection of the original remedy.

In December 1999 EPA issued a Proposed Plan with three remedy alternatives:

- No further action;
- Enhanced on-site waste repository; and
- Off-site removal to a licensed facility.

On June 16, 2000, EPA selected off-site removal in a ROD Amendment because it best met Superfund's nine evaluation criteria. EPA will remove the contaminated soil and monolith to an off-site licensed or permitted facility.

Figure 2. Shattuck Site

Benefits of Off-site Disposal:

- Removes uncertainties concerning the long-term protection of human health and the environment;
- Allows for unrestricted land use upon remedy completion; eliminates reliance on land-use restrictions; and
- Removes source material that could potentially contribute to future groundwater contamination.

PROJECT ACTIVITY UPDATE

On the next page is a time line showing an outline of the events that have occurred since the Spring 2001 Update. These activities, as well as additional activities anticipated for the near future, are presented in this section.

Recent Events

Incidental Investigation

An incidental investigation was performed at the Shattuck site to collect data necessary to support full-scale removal activities. Several types of data were collected during the Incidental Investigation:

- Analytical and radiochemistry data to properly characterize the monolithic material for offsite disposal.
- Radiological data for classification of the upper layer of clay in the cap material.
- Geotechnical data from the ground surrounding the monolith to determine the appropriate method to support and anchor the project structure.
- Description of the cap layers to determine the future use or re-use of each of the layers.

Drilling

Ten sample locations were selected across the top and sides of the monolith to allow for random distribution of the data collection points.

Prior to sampling, the monolith cover materials were removed from a small area around the borehole location. Each cap layer was removed separately, described by the site geologist, and placed alongside the borehole. In addition a sample of the contact clay was collected at each boring location. These clay samples were later composited and submitted for radiological analysis.

A mud rotary drill rig (see Figure 3) was used to collect the samples of the monolith from selected depths at each of the selected locations.

Figure 3. Mud rotary drilling rig coring monolith.

Mud rotary was selected as the preferred method to reduce the generation of dust particles. Drilling fluids were contained.

Core samples obtained from the monolith were analyzed for radiological and waste characteristics. Select samples were also collected for geotechnical analysis to determine compressive strength of the monolith.

A hollow-stem auger drilling rig was used to determine the characteristics of the soil surrounding the monolith (see Figure 4). Soil samples were also collected for geotechnical analysis.

Figure 4. Hollow-stem auger drilling rig collecting soil samples.

Monitoring and Safety

In full compliance with both the site and community health and safety plans, air monitors were installed both onsite and offsite to ensure that air quality remained within acceptable limits during the investigation.

Drilling equipment was scanned for radioactive contaminants prior to working at the site and prior to leaving the site to ensure that additional contamination was not brought onto or removed from the site.

Security was maintained throughout the duration of the investigation.

Award of Site Structure Contract

IT Corporation solicited proposals from experienced firms to construct a project structure at the Shattuck

site. Numerous innovative responses were received. After careful review by IT Corporation and the U.S. Army Corps of Engineers (USACE), the contract was awarded to Yeadon Fabric Domes, Inc., of St. Paul, Minnesota, on September 26, 2001.

The project structure will consist of an air support building spanning the entire 5-acre monolith, approximately 90 feet in height (see Figure 5). It will contain an air handling system equipped with air filters to protect both the workers and the surrounding public health.

Figure 5. Proposed project structure.

Award of Transportation Contract

USACE, Omaha District, requested proposals to perform transportation services for the Shattuck remedial activities. Each transportation contractor was asked to provide costs to three disposal facilities where the USACE had an existing contract.

After review by both the Colorado Department of Public Health and Environment (CDPHE) and USACE, the contract was awarded to MHF Logical Solutions, Inc of Zelienople, Pennsylvania, on September 29, 2001.

Upcoming Events – Winter 2001

Site Access

Site access is tied to finalization of the consent decree, which is anticipated in November 2001. Once site access is granted, preparation for site remedial activities will begin. Site preparation tasks will include procurement of guard services and installation of site signs, air monitors, and utilities needed for the remedial activities.

Design of Railroad

Burlington Northern Santa Fe Railroad provided an approved design for a spur and extra track along the western border of the site. This track will be used for rail access to the project site. This track is scheduled to be installed in late 2001.

Project Structure

Under the current schedule, construction of the project structure will occur in late 2001 to early 2002, with the actual building to be erected in the first quarter of 2002.

Preparation activities will include the removal and staging of the riprap, construction of a concrete foundation, and construction of a decontamination pad, which will be fully enclosed (via an air-lock) with the structure.

Following completion of these tasks, the EPA anticipates beginning demolition of the monolith during the 2nd quarter of 2002. The remedial process is expected to last approximately 18 to 24 months.

YOU CAN BE INVOLVED

Come to the Shattuck Community Advisory Group (CAG) meetings. The CAG is made up of interested and concerned citizens and stakeholders who become informed about site activities and give advice on the cleanup to EPA and CDPHE**.**

You can request to be placed on EPA's mailing list to receive site information such as this fact sheet. The Administrative Record for the site is available at the Information Repositories listed below.

Please Join Us for Shattuck Community Advisory Group Meetings

The Second Wednesday
Every Month

6:30 to 8:30 pm

John Collins Methodist Church
2330 South Bannock Street
Denver

Information Repositories

Documents related to the Shattuck site clean-up process are available for public review at the following locations:

EPA Superfund Records Center
South Tower, 3rd Floor (check-in)
999 18th Street
Denver, Colorado 80202
Monday-Friday 8:00-4:30
(303) 312-6473

Colorado Department of Public Health and Environment Record Center, B Building, 2nd Floor
4300 Cherry Creek Drive South
Denver, Colorado 80246
Monday-Friday 8:00-5:00
(303) 692-3331

For More Information Contact:

U.S. Environmental Protection Agency
999 18th Street, Suite 300
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